

Application Number 10/026,293
Responsive to Office Action mailed December 28, 2004

REMARKS

This Amendment is responsive to the Office Action dated December 28, 2004. Applicant has amended claims 1, 2, 16, 18, 19, 21, 22, 26, 28, 33, 35 and 37, and canceled claims 17 and 20. Claims 1-4, 6-12, 16, 18, 19, 21, 22, 26-29 and 31-39 are now pending.

Applicant maintains traverse of all pending rejections for various reasons previous recited on the record. However, in the interest of advancing prosecution of the Application toward issuance, Applicant has amended all pending independent claims to clarify the inventions and more clearly distinguish the prior art of record.

All pending claims now clarify that the invention includes capturing an image including text in a first language, transmitting the image over a network so that another device can translate the text, receiving a translation of the text in a second language, and presenting the translation to a user. That this unique and useful combination of features is not disclosed or suggested in any of the applied references.

More specifically, claim 1 has been amended to recite a method comprising capturing an image containing text in a first language; establishing a wireless connection with a network; transmitting the image containing text in the first language over the network via the wireless connection; receiving a translation of the text in a second language over the network via the wireless connection; and displaying the translation of the text in the second language.

Claim 16 has been amended to recite a device comprising an image capture apparatus that captures an image containing text in a first language; a transmitter that transmits the image over a network via a wireless connection so that the text can be translated by a different device; a receiver that receives a translation of the text in a second language over the network via the wireless connection; and a display that displays the translation of the text in the second language.

Claim 26 recites a system comprising a client device having an image capture apparatus that captures an image containing text in a first language, a client transmitter that transmits the image over a network to a remote server via a wireless connection so that the text can be translated by the remote server, a client receiver that receives a translation of the text in a second language over the network from the remote server via the wireless connection, and a display that displays the translation of the text in the second language. Further, the system comprises a remote server having a receiver that receives the image over the network from the client device, a

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translator that generates the translation of the text in the second language and a transmitter that transmits the translation over the network to the client device.

Claim 28 recites a method comprising capturing a first image containing text in a first language with an image capture device; generating from the first image a second image containing the text in response to a command from a user, wherein generating the second image includes editing out one or more portions of the first image that do not include the text; transmitting the second image over a network so that the text can be translated by another device; receiving a translation of the text in a second language over the network; and displaying the second image and the translation.

Claim 33 recites a device comprising an image capture apparatus that captures an image containing text in a first language; a controller that edits the image in response to commands of a user to edit out one or more portions of the first image that do not include the text; a transmitter that transmits the edited image over a network so that the text can be translated by another device; a receiver that receives a translation of the text in a second language over the network; and an output device that presents the translation to the user.

Claim 37 recites a method comprising capturing an image containing text in a first language; transmitting the image containing text in a first language over a network so that the text can be translated by another device; receiving a translation of the text in a second language over the network; and displaying the image and the translation simultaneously.

In the Office Action, the Examiner rejected claims 1, 3-4, 6-13 under 35 U.S.C. 103(a) as being unpatentable over Chong (USPN 5,525,120) (hereafter Chong) in view of Nguyen (USPN 5,797,089) (hereafter Nguyen). In addition, the Examiner rejected claims 1, 3-4 and 6-13 under 35 U.S.C. 103(a) as being unpatentable over Yamauchi et al. (USPN 5,701,497) (hereafter Yamauchi) in view of Nguyen. Under a separate heading in the Office Action, the Examiner then rejected claim 2 under 35 U.S.C. 103(a) as being unpatentable over Chong in view of Nguyen.

Applicant respectfully traverses all of these rejections to the extent such rejections may be considered applicable to the claims as amended. The applied references fail to disclose or suggest the inventions defined by Applicant's claims, and provide no teaching that would have suggested the desirability of modification to arrive at the claimed invention.

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The Chong reference describes a machine translation and telecommunications system that is very different than the techniques and devices recited in Applicant's claims. In Chong, a computer server 10 receives image data via a facsimile transmission or a conventional page scanner. The server 10 performs a translation of the facsimile transmission, and then uses output module 30 to transmit translated text to a recipient via a return facsimile transmission.

Nothing in Chong even suggests the use of an image capture device to capture an image that includes text, nor the transmission of such an image. The concept of capturing an image that includes text to be translated is completely lacking from Chong.

Furthermore, a facsimile transmission, as used by Chong, is very different and more cumbersome than the transmission of a captured image. In particular, a facsimile transmission involves scanning at a sending device, data transmission, and subsequent printout at the receive device. The transmission of a captured image, in contrast, does not require the scanning or printout needed in a conventional facsimile transmission.

Moreover, nothing in Chong suggests the reception and display of the translation. Instead, in Chong the translation is sent via a return facsimile transmission. Accordingly, the translation is not displayed in Chong. In addition, Chong lacks any suggestion of the use of wireless communication as required by claims 1 and 16.

The Yamauchi reference also describes a translating telecommunication apparatus that is very different than the techniques and devices recited in Applicant's claims. Like Chong, Yamauchi makes use of a facsimile apparatus or scanner. Thus, like Chong, Yamauchi appears to lack any suggestion of the use of an image capture device to capture an image that includes text. Also, like Chong, Yamauchi lacks suggestion of the transmission of such an image insofar as facsimile is different and much more cumbersome than a transmission of an image.

Moreover, Yamauchi is also fundamentally different than the features of Applicant's claims insofar as Yamauchi contemplates the reception of a scanned or faxed page, the translation of the page, and the display of the translation by the same device that performs the translation. In stark contrast, Applicant's pending claims involve the transmission of a captured image, the translation of text in the image by another device, the reception of the translation, and the presentation or display of the translation. Thus, in contrast to Yamauchi, Applicant's claims distinguish that the device that presents or displays the translation is different than the device

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(such as a network server) that performs the translation. In this manner, by separating the translation from the displaying device, Applicant's invention is highly desirable for many environments, such as hand-held computer and cellular telephone environments, where the device that displays the translation to the user may have limited processing capabilities that otherwise make translation difficult or impossible.

The Nguyen reference lacks any teaching that would have led a person of ordinary skill in the art to modify the system of either Yamauchi or Chong to replace the facsimile transmission of either the Yamauchi or Chong system with an image capture apparatus and image transmission. Nguyen appears to describe nothing more than a conventional personal digital assistant (PDA) connected to a mobile telephone unit.

Nguyen has absolutely no relevance to image translation systems. For example, nothing in Nguyen suggests that the PDA can capture an image of text, transmit the image to a server for translation, and receive a translation from the server, as required by Applicant's claims. These features are simply lacking from Nguyen and the other applied references.

In summary, Applicants pending claims have been amended to clarify that the invention includes capturing an image including text in a first language, transmitting the image to another device over a network so that the other device can translate the text, receiving a translation of the text in a second language, and presenting the translation to a user, e.g., via a display. This unique and useful combination of features is not disclosed or suggested in any of the applied references.

The invention may have particularly usefulness with hand-held computers or cellular telephones that include integrated digital cameras. In this case, a user may capture an image of an unknown text of a foreign language. The device can then transmit the image to a remote server so that the text can be translated. In this manner, separating the translation from the displaying device is highly desirable as the server may be better equipped to perform the translation. The server can transmit the translation back to the device for presentation to the user, which may appear seamless to the user as though the device (rather than the server) performed the translation.

With regard to claims 4, 18, 32, 35 and 37, Applicant's further note that these claims recite the simultaneous display of the un-translated image and the translation. In rejecting this

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feature of Applicant's claims, the Examiner cited column 19, line 15 to column 20 line 4 of Chong. In addition, the Examiner cited column 4, lines 45-52 of Yamauchi.

In response to the rejections of claims 4, 18, 32, 35 and 37, Applicant respectfully notes that the cited passage of Chong lacks any mention, whatsoever, of the simultaneous display of the un-translated image and the translation. With respect to the cited passage of Yamauchi, the display of the translation occurs at the device that performed the translation, not a device that sends the image to another device for translation as required by Applicant's claims. For these additional reasons, Applicants believe that the Examiner's rejections of claims 4, 18, 32, 35 and 37 are improper and should be withdrawn.

Independent claims 28 and 33 have been further amended to require the editing out of one or more portions of the first image that do not include the text. This feature finds support in Applicant's specification at a number of locations, including page 6, lines 20-28. This feature is lacking from all of the applied references.

With regard to the various other features recited in independent and dependent claims, Applicant reserves further comment at this time. However, Applicant does not acquiesce to any of the Examiner's rejections or characterizations of the prior art. Applicant reserves the right to present additional arguments.

All claims in this application are in condition for allowance. Applicant respectfully requests reconsideration and prompt allowance of all pending claims. Please charge any additional fees or credit any overpayment to deposit account number 50-1778. The Examiner is invited to telephone the below-signed attorney to discuss this application.

Date:

March 28, 2005

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